



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 5 2003

OFFICE OF
AIR AND RADIATION

Mr. Kevin Brown
Engine Control Systems,
165 Pony Drive
Newmarket, Ontario
L3Y 7V1
Canada

Dear Mr. Brown:

The U.S. Environmental Protection Agency (EPA) has reviewed your request for verification of the Engine Control Systems (ECS) Purifilter diesel particulate filter. Based on our evaluation of the verification application and the preliminary test data, EPA hereby conditionally verifies that this technology reduces emissions of certain criteria pollutants by the percentages described in the table below. This conditional verification is based on preliminary emissions test data from the ETV testing program. These provisional values are subject to change pending our final review of the test data.

This technology combination is approved for use on the following engines and/or vehicles provided all of the required operating criteria are met as described below:

All non-EGR equipped, 4-stroke, highway, medium and heavy heavy-duty, and urban bus diesel engines including, turbo-charged or naturally aspirated, mechanically or electronically injected and originally manufactured from 1994 through 2003 model years.

Technology	Baseline Fuel (sulfur content)	Fuel with Technology (sulfur content)	Particulate Matter (PM) %	Carbon Monoxide (CO) %	Hydro- carbons (HC) %	Oxides of Nitrogen (NOx) %
Purifilter Diesel Particulate Filter	≤500 ppm	≤15 ppm	90*	75*	85*	n/a

* These effectiveness figures are provisional values subject to change pending final review of the test data.

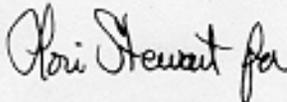
The following operating criteria must be met in order for appropriately retrofitted engines to achieve the aforementioned emissions reductions:

1. The engine exhaust temperature must be at least 280° C for at least 25% of the applicable duty cycle. (As there may be significant variations from application to application, ECS will review actual vehicle operating conditions and perform temperature data-logging prior to retrofitting a vehicle with their PM filter system to ensure compatibility.)
2. The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
3. ECS installs a back-pressure monitor and malfunction indicator light on all vehicles equipped with a Purifilter.
4. The engine must be operated with a fuel that contains a sulfur content of no more than 15 ppm maximum sulfur content to achieve the reductions listed above.

Information on the Purifilter diesel particulate filter, percent reductions, applicable engines, and in-use testing program will be posted on the EPA Voluntary Diesel Retrofit Program website (www.epa.gov/otaq/retrofit). As you know, ECS will be responsible for completing the required in-use testing program and for submitting all in-use testing data to EPA.

Thank you for participating in EPA's Voluntary Diesel Retrofit Program. If you have any questions or comments, please contact Steve Albrink, of my staff, at 202-564-8997 (202-343-9671 after November 17, 2003).

Sincerely,



Merrylin Zaw-Mon, Director
Certification & Compliance Division
Office of Transportation and Air Quality